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Patent

Reply To Examiner's Remarks

Claims 1, 3-4, 6-12, 14-37 and 38-45, as amended, and new claim 47 are presented for consideration.

The Examiner indicates that claims 30-37 are allowable.

The Examiner indicates that claims 5-9, 13-29 and 46 would be allowable if rewritten in independent form to cover the limitations in the base claim (1 or 38) and in any intervening claims.

Claim 1 is amended to include the limitations of former claim 5, which is canceled herein. Claims 3-4 and 6-12 are amended to depend upon amended claim 1. Claim 13 is rewritten as new claim 47, which includes the limitations of claim 1 and former claim 13, which is canceled herein. Claims 14-29 are amended to depend upon new claim 47. Claim 38 is amended to include the limitations of former claim 46, which is canceled herein. Claims 39-45 are amended and depend upon amended claim 38.

Claims 3-4 and 6-12 depend upon amended claim 1 and are believed to be allowable if amended claim 1 is allowable.

Claims 14-29 depend upon new claim 47 and are believed to be allowable if new claim 47 is allowable.

Claims 39-45 depend upon amended claim 38 and are believed to be allowable if amended claim 38 is allowable.

The Applicants believe that claims 1, 3-4, 6-37 and 38-45, as amended, and new claim 47, are consistent with, and respond to, the Examiner's directions concerning claims that are, or would be allowable and request that the Examiner pass the application, including claims 1, 3-4, 6-37 and 38-45, as amended, and new claim 47, to issue as a U.S. patent.

The Examiner rejects claims 1-4, 10-12, 38 and 41-45 under 35 U.S.C. 103(a) as being unpatentable over the combined disclosures of U.S. Patent No. 4,093,771, issued to Goldstein et al (the "Goldstein patent") and published

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Patent

patent application No. 2001/0051218, filed by Wittenauer et al (the "Wittenauer PPA")

The Examiner rejects claims 1-4, 10-12, 38 and 41-45 under 35 U.S.C. 103(a) as being unpatentable over the combined disclosures of U.S. Patent No. 4,093,771, issued to Goldstein et al (the "Goldstein patent") and U.S. Patent No. 6,444,271, issued to Wittenauer et al (the "Wittenauer '271 patent").

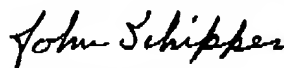
The Examiner rejects claims 1-4 and 10-12 under 35 U.S.C. 103(a) as being unpatentable over the combined disclosures of U.S. Patent No. 5,079,082, issued to Leiser et al (the "Leiser patent") and the Wittenauer PPA.

The Examiner rejects claims 38-45 under 35 U.S.C. 103(a) as being unpatentable over the combined disclosures of the Leiser patent and the Wittenauer PPA.

The Examiner rejects claims 1-4, 10-12 and 38-45 under 35 U.S.C. 103(a) as being unpatentable over the combined disclosures of the Leiser patent and the Wittenauer '271 patent.

The Wittenauer PPA and the Wittenauer '271 patent do not disclose useful percentages or percentage ranges for constituents of a refractory ceramic coating and do not indicate any concern with possible mismatch of coefficients of thermal expansion between a substrate and the refractory coating. For example, the CTE mismatch between a carbon substrate and a pure tantalum disilicide refractory material bonded to the substrate is very large so that this bonded combination could not be used in a large physical extent (e.g., 6 inches or more) in the direction of the bonding.

Respectfully Submitted,



John Schipper

Date: 23 December 2005

Patent representative for Applicants